

# Delaware's Low Emission Vehicle 7 DE ADMIN. CODE 1140

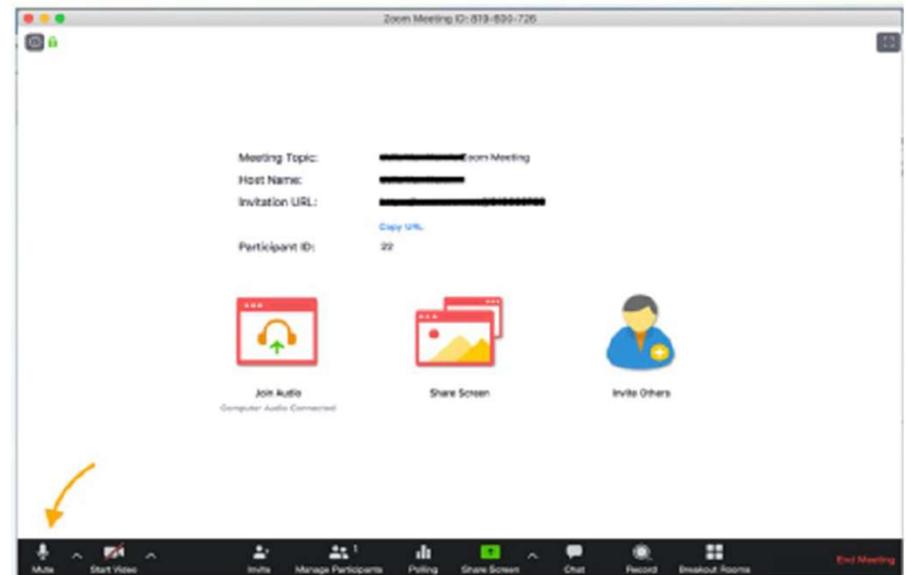
Proposed amendments for Advance Clean Car II

Key Stakeholders Meeting  
October 13, 2022



# ZOOM Orientation

- Attendees will remain on mute until called on in the speaking queue
- Zoom: **Mute/Unmute** button at the bottom left
- Phone: Dial \*6 to mute/unmute
- •Click the camera icon at the bottom left of your screen to toggle your video on and off



# Raise Hand to Speak

- To speak, please use **Raise Hand** feature
- Zoom: Using the **Reactions (Smiley face)** and click on **Raise Hand**
- Then unmute yourself and speak...
- Phone: We'll check in with the phone line periodically

# Meeting Logistics

- This workshop is being recorded.
- Questions can be sent via the ZOOM chat box...OR
- Raise your hand to speak
- Follow-up questions can be sent to Kyle Krall ([Kyle.krall@delaware.gov](mailto:Kyle.krall@delaware.gov))
- Comments submitted can be viewed on the [Regulations and Plans Under Development - DNREC Alpha \(delaware.gov\)](#)

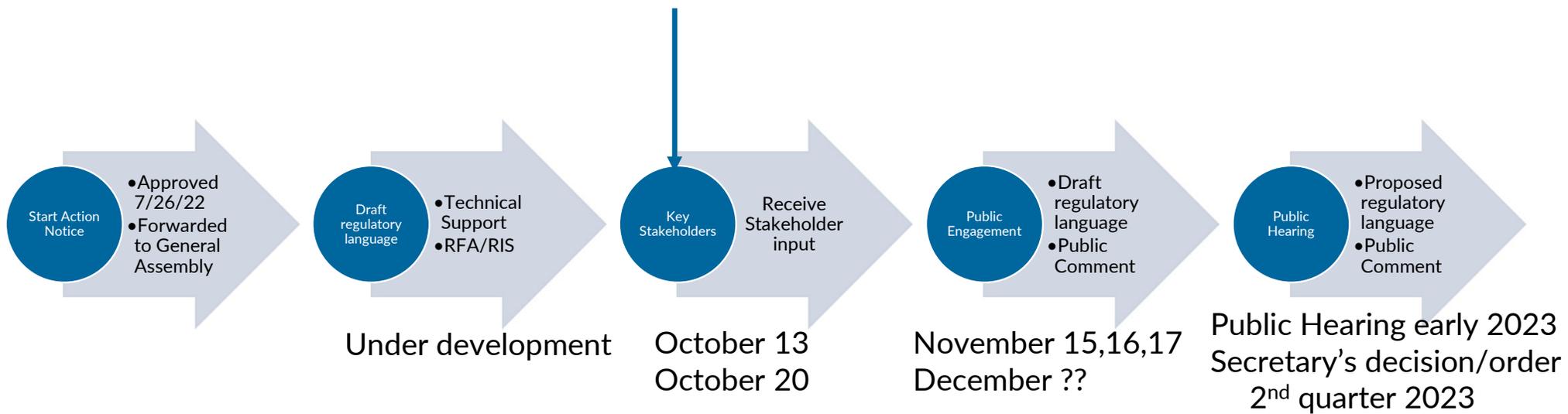
# Agenda

- 1:00 Welcome, introductions, and ground rules
- 1:15 Background & Overview of Advanced Clean Cars II Program
  - Low Emission Vehicle Requirements
  - Greenhouse Gas Requirements
  - Zero Emission Vehicle Requirements
- 2:00 Complementary Policies
- 2:30 Q/A & Open Discussion
- 2:55 Wrap up and Next Steps
- 3:00 Adjourn

# Meeting Objectives

- Explain Delaware's Air Quality problem.
- Provide a high-level overview of the Advance Clean Car program.
- Identify key areas of concern.
- Identify barriers to implementation.

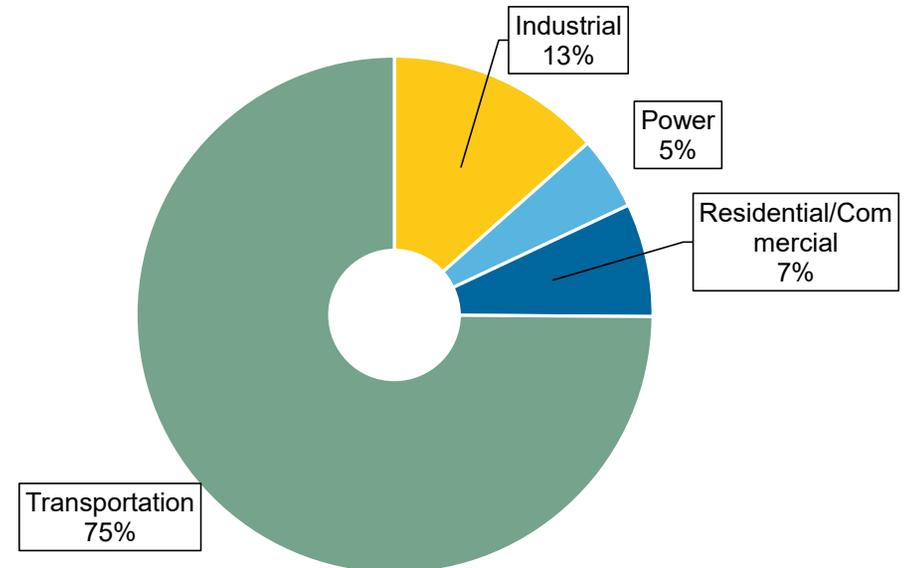
# Regulatory development timeline



# Background on Delaware's Air Quality

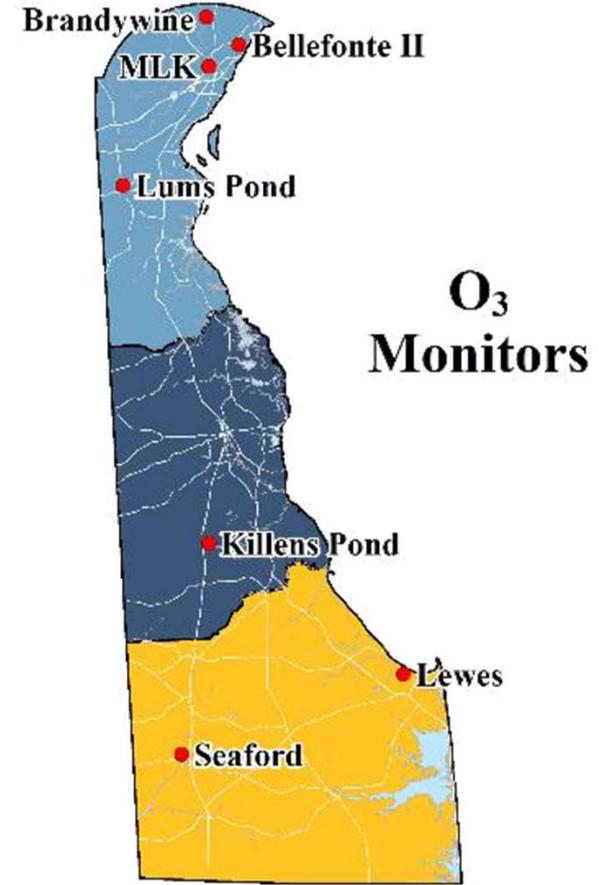
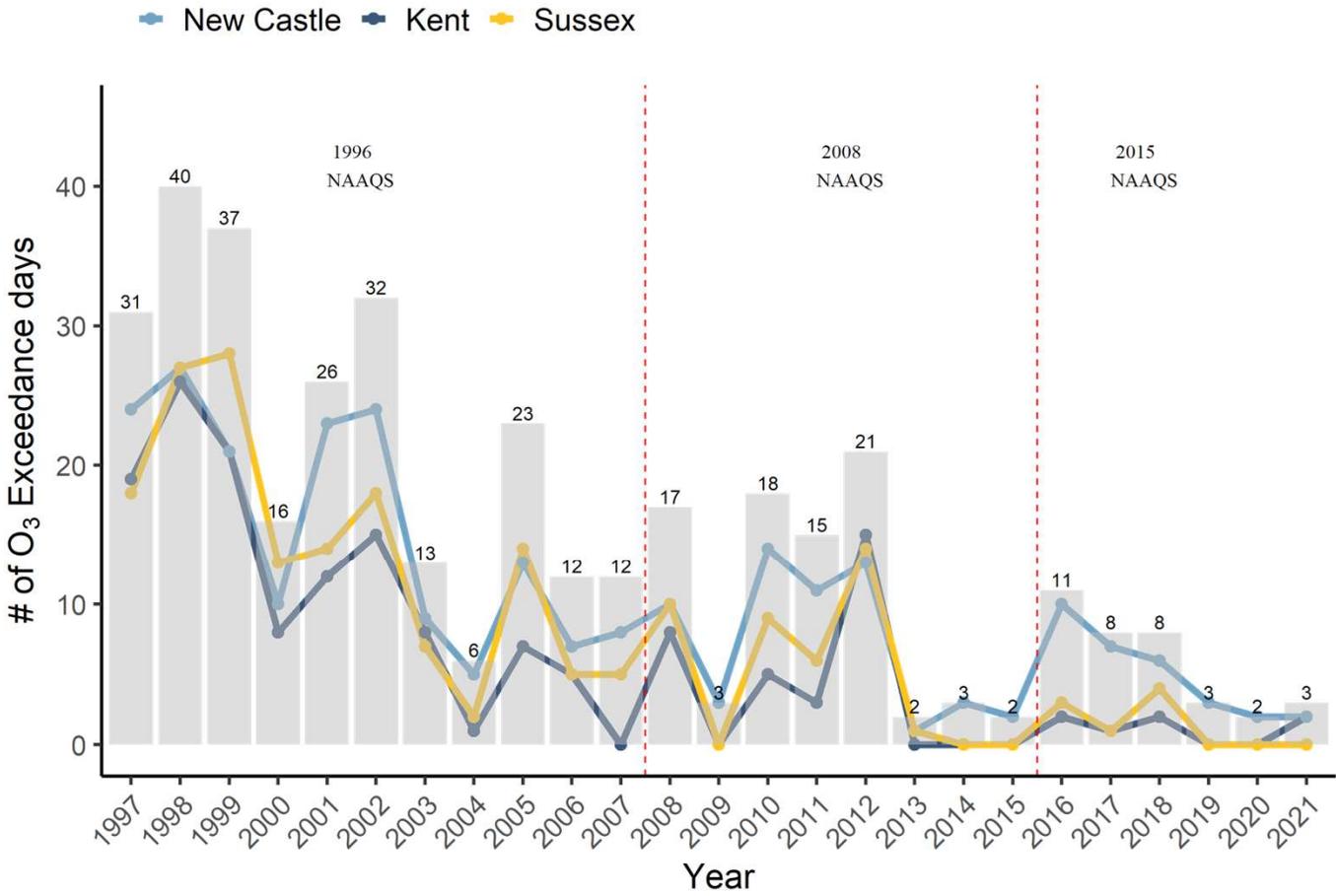
- DNREC has worked to reduce smog forming pollution by ~62% since 1990.
- Delaware's New Castle County is designated non-attainment for the federal ozone health-based standard.
- Vehicles continue to contribute air quality pollutant emissions – particulate matter, CO, NOx, and greenhouse gases.

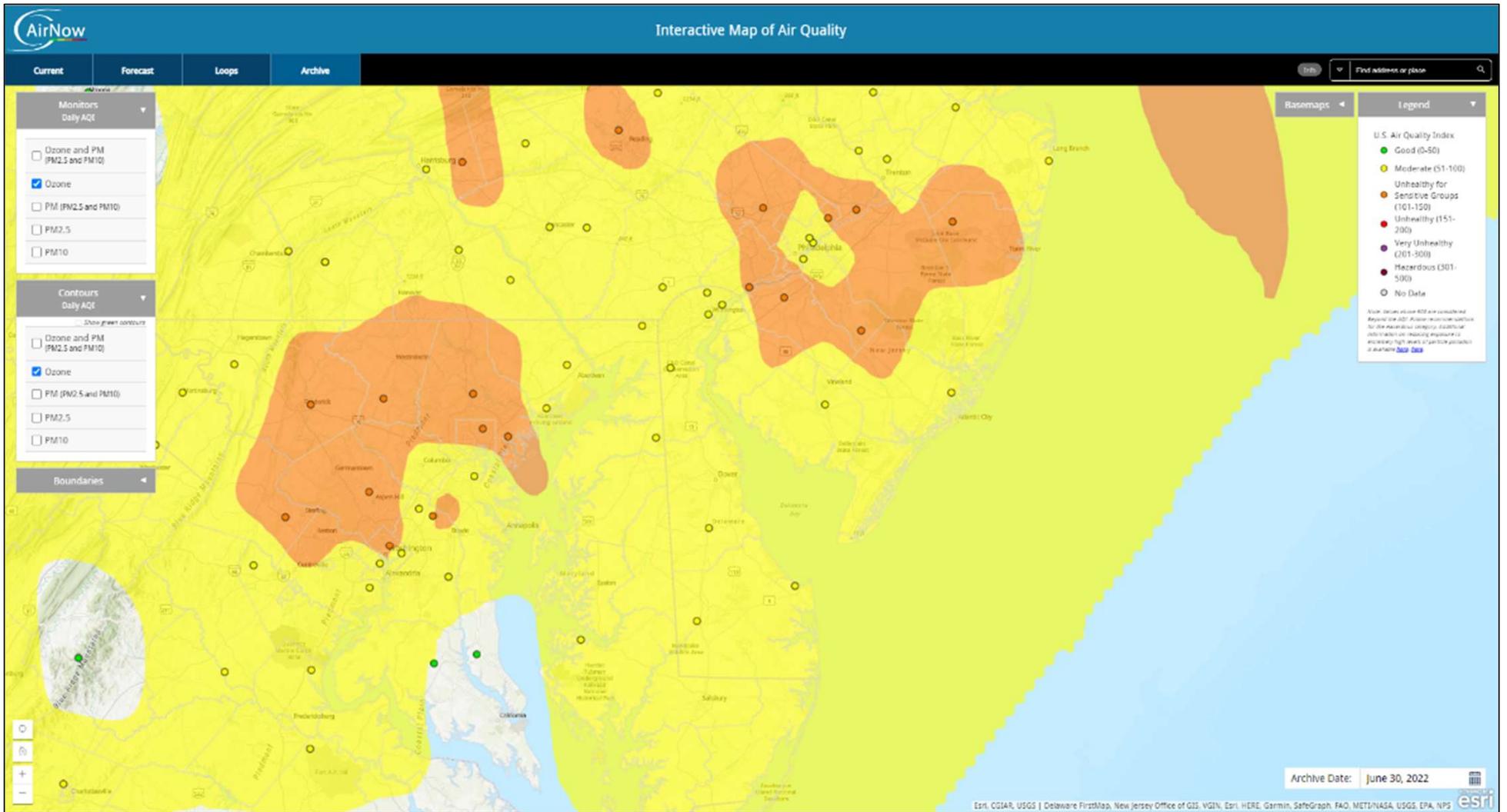
2017 NEI Delaware NOx Emissions by Sector



# O<sub>3</sub> Yearly 8-hour NAAQS Exceedance Days

Exceedance Days by County: 1997 to 2021





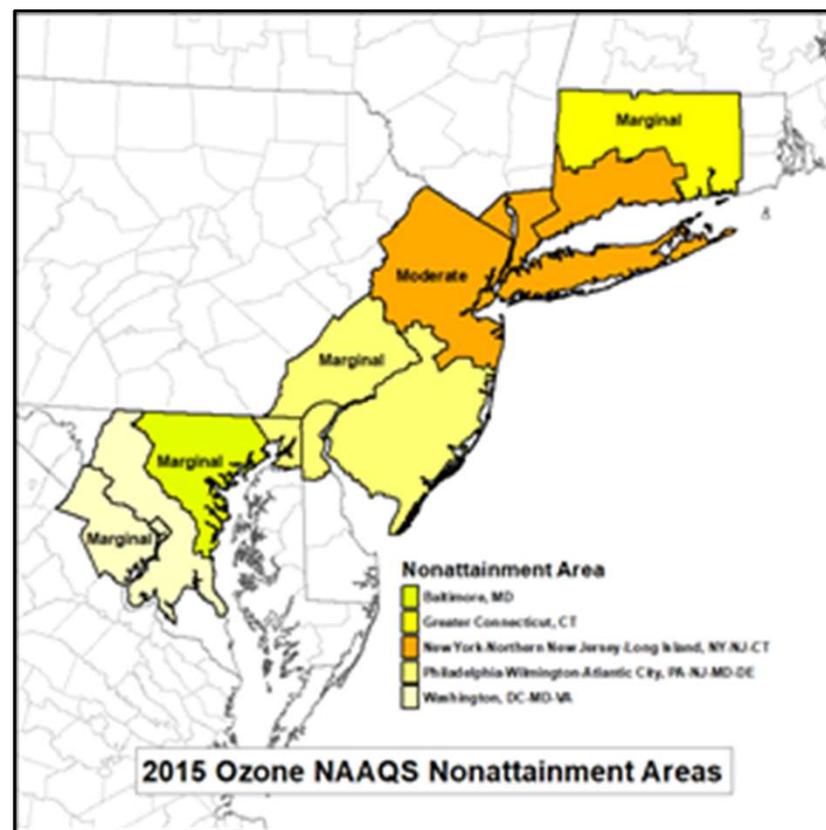
October 13, 2022

# Non-attainment Area

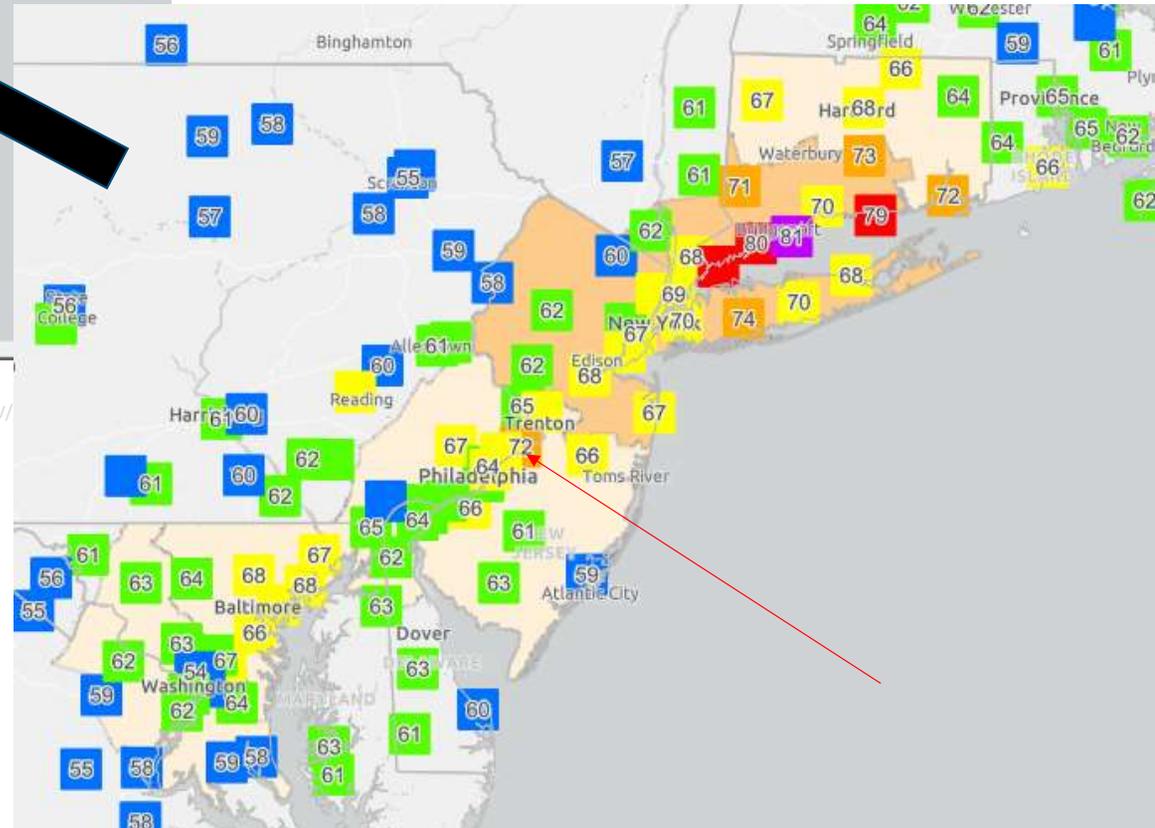
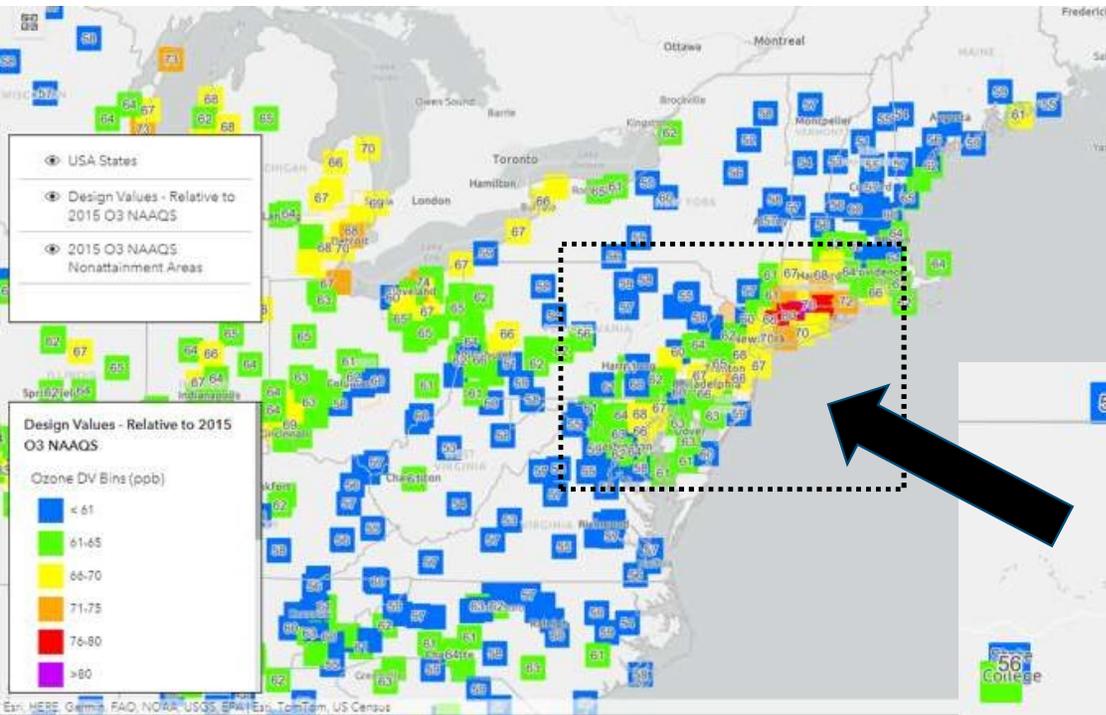
<b>DELAWARE</b>	
New Castle County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)*
Sussex County	
<i>8-Hour Ozone (2008)</i>	Seaford, DE - (Marginal)

\*Bumped-up to Moderate, Sep. 2022

Delaware's non-attainment is tied to the greater Philadelphia area. The Buck's County air monitor continues to record levels above the federal Health-based standard of 70 ppb.



# Preliminary 2020-22 Design Value



"2022 Ambient Ozone Concentrations - Relative to the 2008 and 2015 8-Hr Ozone NAAQS" - <https://experience.arcgis.com/experience/502feb600b32460caee6bbd10f8f4559/page/2015-O3-NAAQS--Prelim-DV/>

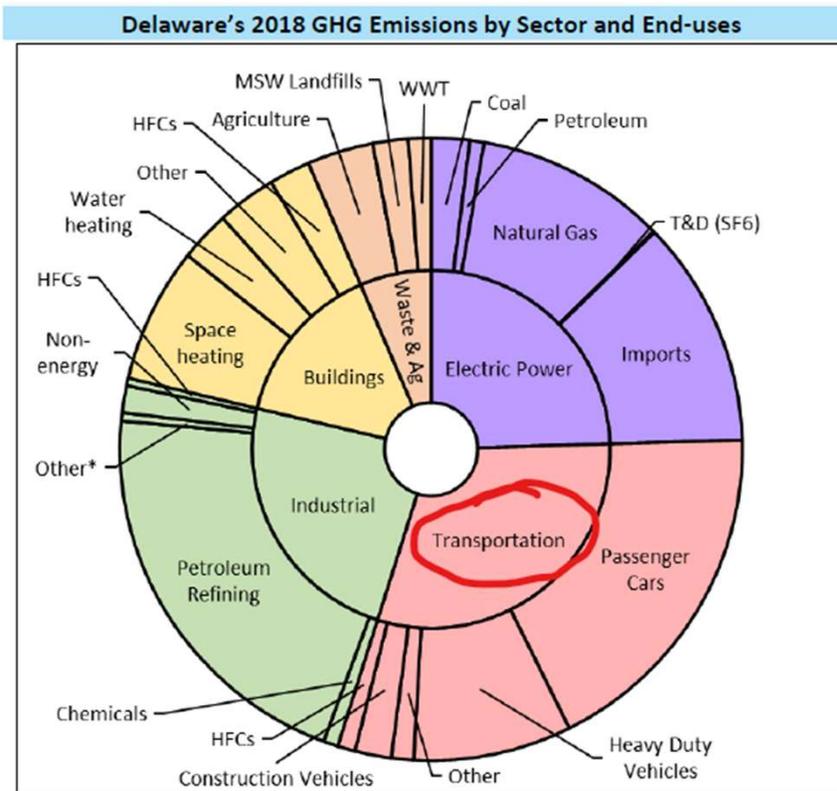
Data through September 18, 2022

# Ozone Non-attainment – Moderate

- On September 16, 2022, the EPA reclassified Delaware's New Castle County as Moderate non-attainment based on data from 2018-2020.
- This 'bump-up' requires Delaware to identify additional emission reductions for NOx and VOC emissions.
  - 15% reductions must be identified and implemented.
  - Additional emission reductions known as contingency measures must be identified.
- An updated State Implementation is due to EPA by January 1, 2023.

# GHG Emissions from Transportation

- The largest source of GHG emissions in Delaware in 2018 was the transportation sector, which represented 30% of the gross GHG emissions.
- Passenger cars and light-duty trucks represent 60% of Delaware's GHG emissions from transportation.



# Health & Environmental Impacts from vehicles include...

- Health

- Vehicles are now the primary source of smog-forming nitrogen oxides (NOx) and fine particulate matter (PM2.5) that worsen public health outcomes.
- Diesel engines emit high levels of particulate matter, which is airborne particles of soot and metal. These cause skin and eye irritation and allergies, and very fine particles lodge deep in lungs, where they cause respiratory problems.
- Harmful levels of these pollutants exacerbate asthma and other cardio-respiratory illnesses, especially in children and older adults, leading to additional hospitalizations and premature deaths.

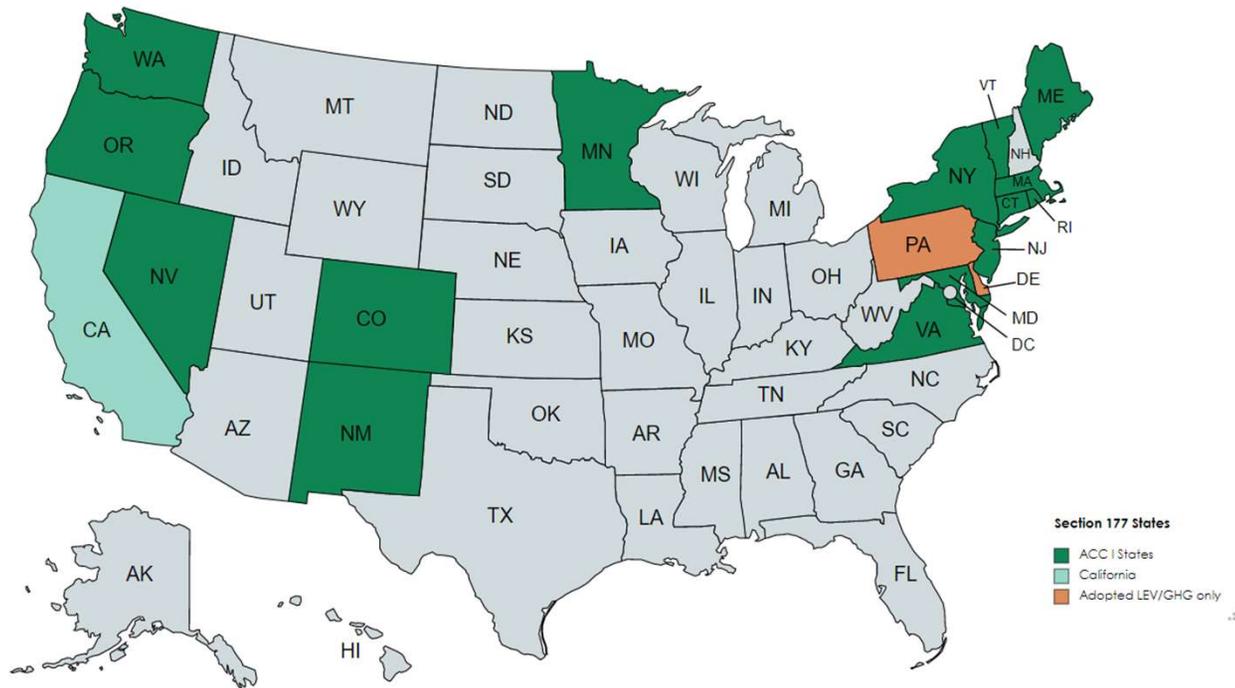
- Environmental

- The effects of car pollution are widespread, affecting air, soil and water quality. Nitrous oxide contributes to the depletion of the ozone layer, which shields the Earth from harmful ultraviolet radiation from the sun. Sulfur dioxide and nitrogen dioxide mix with rainwater to create acid rain, which damages crops, forests and other vegetation and buildings.
- Oil and fuel spills from cars and trucks seep into the soil near highways, and discarded fuel and particulates from vehicle emissions contaminate lakes, rivers and wetlands.
- Delaware is already experiencing the impacts of Climate Change.
  - Increased temperatures
  - Sea level rise
  - Extreme precipitation events

# Clean Air Act and Vehicle Emission Standards

- In 1967, the federal Clean Air Act (CAA) established the framework for controlling mobile source emissions in the United States.
- Although states were preempted by Section 209 of the CAA from adopting state emissions standards, California was granted a special exemption to the federal preemption due to the state's unique air quality problems.
  - This exemption gave California the authority to set its own vehicle emission standards as long as such standards are at least as protective as the federal standards.
- A subsequent amendment to the CAA in 1990 added Section 177 that allows other states to adopt the California's vehicle emission standards instead of relying on the weaker federal standards.

# California and the Section 177 States



# Clean Air Act Limitations

- States can adopt California emission standards but must do so identically.
- Provide two years' advance notice before the start of the model year
- Delaware has required new vehicles meet California's more stringent emission standards since 2014.
- These emission standards in place through the 2025 model year.

# Advance Clean Car I (model year 2015-2025)

- The ACC I program, first adopted by CARB in 2012, incorporated three elements that combined the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2015 through 2025.
- These three elements included
  - the Low-Emission Vehicle,
  - Greenhouse Gas regulations (LEV III) and
  - the Zero-Emission Vehicle (ZEV) regulation.





# What does Delaware need for cleaner air?

October 13, 2022

- Significant reductions of smog forming pollution from vehicles.
  - Meet the federal health-based standards
  - Reduce the vehicle emissions contributing to pollution in PA
  - Reduce the impact the transportation sector has on our EJ communities
- Reduction of GHG emissions from vehicles



## Delaware to Adopt Zero Emission Vehicle Regulation

**Goal is to Increase Electric Vehicle Availability, Purchases in First State and Save Delaware Drivers Money**

**WILMINGTON, Del.** — Governor John Carney on Thursday announced that Delaware will join 13 other states in adopting California's Zero Emission Vehicle (ZEV) regulations, providing drivers looking to purchase an electric vehicle with more choices at Delaware dealerships.

"In 2017, we signed on to the U.S. Climate Alliance, committing to reduce our carbon emissions by at least 26 percent by 2025. Adopting ZEV regulations will help us make progress on those goals, as well as the other goals outlined in Delaware's Climate Action Plan," said **Governor Carney**. "By adopting the ZEV regulations, Delaware drivers won't have to go out of state to find an electric vehicle to purchase, and our dealerships will benefit by keeping Delaware customers in Delaware. By creating a better environment for the sale and purchase of electric vehicles, and aligning the environment with massive investments in infrastructure from the Bipartisan Infrastructure Law, we will create a positive electric vehicle future in our state."

Managed by the Delaware Department of Natural Resources and Environmental Control (DNREC), the ZEV program is designed to accelerate the commercialization of battery-electric, plug-in hybrid and fuel cell electric vehicles. The regulations mandate that a certain percentage of the vehicles delivered for sale in a state are ZEV vehicles. Manufacturers receive credits for each delivered vehicle based on the type of vehicle, range and other factors. Each year, manufacturers must meet a ZEV credit amount that is based on average annual sales. In states already in the program, the automobile industry has successfully met the required percentage.

Transportation is the leading source of greenhouse gas emissions in Delaware. **DNREC Secretary Shawn M. Garvin** said increasing the number of zero emission vehicles on Delaware roads, along with building out the state's electric vehicle charging network are key strategies outlined in Delaware's Climate Action Plan, a result of a two year-long process involving residents, businesses, and technical experts.

Advancing these strategies will reduce carbon pollution, improve air quality and help support fuel saving consumer. According to the U.S. Environmental Protection Agency, switching to an electric vehicle can save a driver up to \$1,000 per year in fuel costs.

Delaware's Strategy to Address Air Emissions from Transportation



## Advance Clean Cars is...

- Actionable
- Achievable
- Aspirational



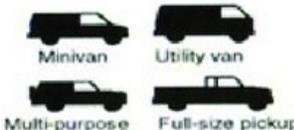
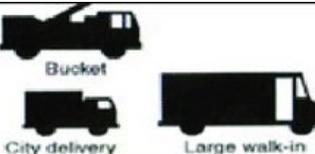
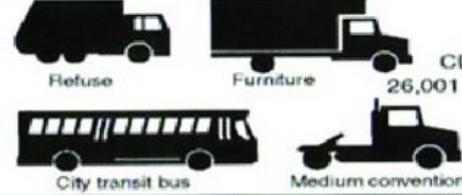
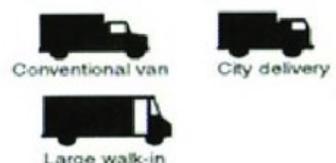


# Who has a compliance obligation?

- The automobile manufacturers (Original Engine Manufacturer, OEM) are responsible for designing, producing and delivering vehicles to market that meet the ACC emission standards.
- Certify their vehicles meet the criteria and GHG emission standards.
- Deliver an increasing number of zero emitting vehicles for sale.

# What types of vehicles are covered by ACC ?

Vehicles that weigh up to 14,000 lbs gross vehicle weight.

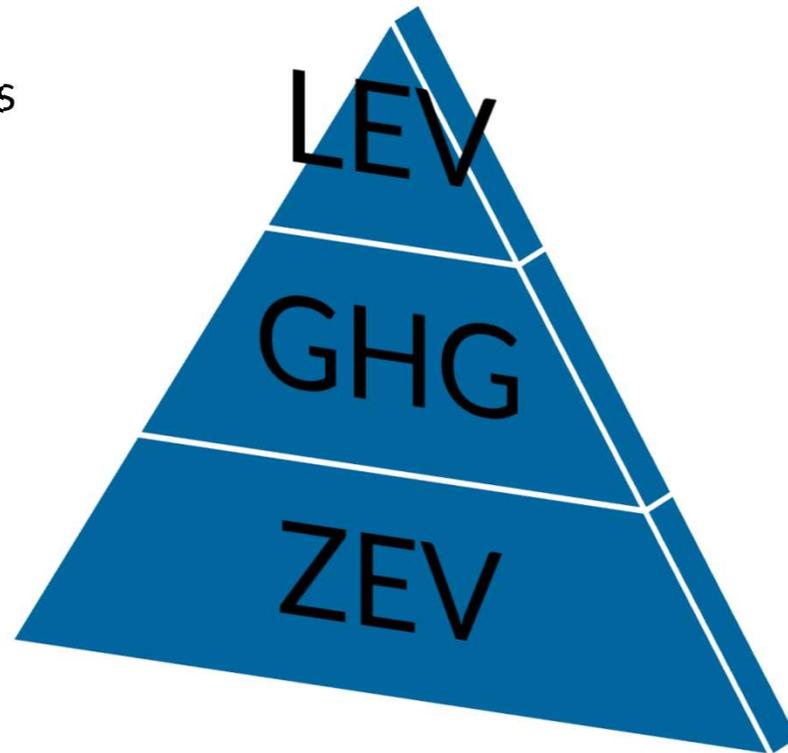
 <p>CLASS 1 6,000 lb &amp; less</p>	 <p>CLASS 5 16,001 to 19,500 lb</p>
 <p>CLASS 2 6,001 to 10,000 lb</p>	 <p>CLASS 6 19,501 to 26,000 lb</p>
 <p>CLASS 3 10,001 to 14,000 lb</p>	 <p>CLASS 7 26,001 to 33,000 lb</p>
 <p>CLASS 4 14,001 to 16,000 lb</p>	 <p>CLASS 8 33,001 lb &amp; over</p>

# When would compliance begin?

- Beginning with model year 2027 and not model year 2026.
- This is due to Delaware's timeline for adoption of the California amendments.
- The California program commences with model year 2026 which begins January 2, 2025.

# Elements of Advance Clean Car II

1. Low Emission Vehicle Standards
2. Greenhouse Gas Standards
3. Zero Emission Vehicles



# Program Elements – Low Emission Vehicles



1. NMOG+NO<sub>x</sub> fleet average
2. Aggressive driving emission standards
3. Particulate matter standards
4. Emission control for vehicle soaks
5. Control of quick drive - away emissions
6. PHEV high power cold - start emissions
7. Evaporative emission standards
8. Emission control for heavier vehicles

# Program Elements – Green House Gases

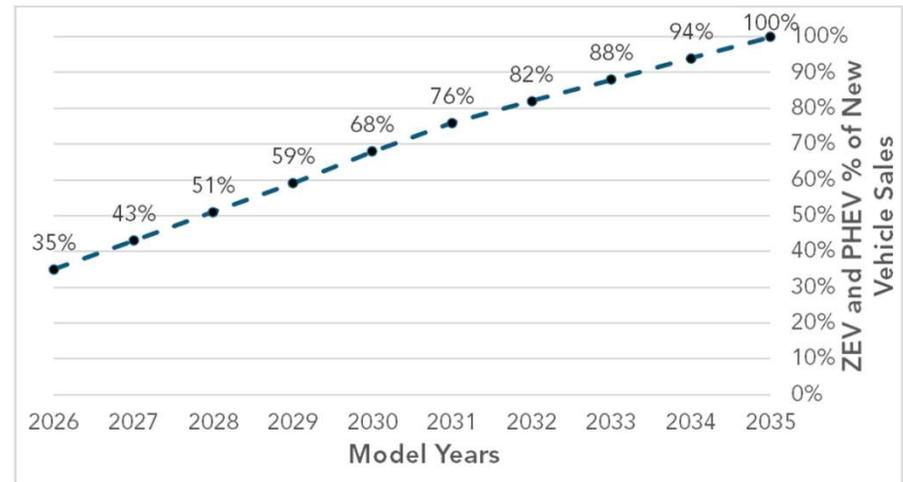


- GHG Refrigerant Provision
  - Prohibit high – Global Warming Potential (>150) refrigerants in new LDV A/C systems (post - MY 2025)
    - Contribute to meeting the State’s HydroFluoroCarbons (HFC) reduction goals [7 DE Admin Code 1151]
    - Ensure continued industry low – Global Warming Potential transition
    - Align with European Union’s MAC Directive
  - Continue to offer A/C credits (Leakage or Efficiency or both)
    - Use best and latest knowledge to inform credit program update

# Program Elements – Zero Emission Vehicles



- ACCII is not a requirement that consumers purchase an electric vehicle, or that dealers sell a required volume of electric vehicles.
- ACCII is a requirement imposed solely on auto manufacturers to deliver a certain annual percentage of ZEVs to Delaware, increasing to 100% ZEVs by 2035.
- The annual ZEV requirement aligns with where the market is expected to be in 2026 and continues to ramp up quickly.
- Small volume manufacturers must comply with the annual ZEV requirement beginning with the 2035 model year.



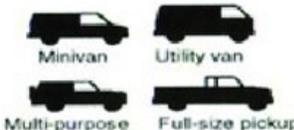
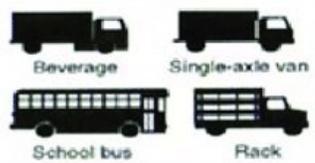
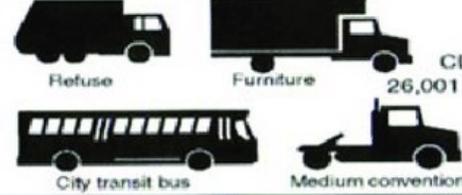
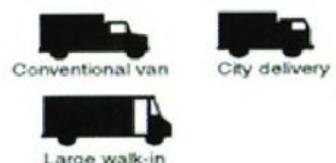
# What are ZEVs

- Plug-in Hybrid EVs
- Zero Emitting Vehicles



# What types of vehicles are covered by ACC ?

Vehicles that weigh up to 14,000 lbs gross vehicle weight.

 <p>CLASS 1 6,000 lb &amp; less</p>	 <p>CLASS 5 16,001 to 19,500 lb</p>
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# ZEV Element



- Vehicle manufacturers earn credits for each certified ZEV produced for sale in Delaware and partial credits for PHEVs.
- To provide flexibility for manufacturers for model years 2026 through 2030, ACCII includes “pooling” which allows manufacturers to move a specified percentage of excess ZEV and PHEV credit values earned in one state for use in another state where there is a shortfall relative to the requirement.

# Consumer Protection Elements

- ACCII also includes enhanced consumer protection measures to improve vehicle warranties and ensure durability of battery technology.
- These ZEV assurance measures are necessary to ensure both that ZEVs function as expected over their lifetimes and that consumers are not deterred from purchasing them both new and used.

# Environmental Justice

- ZEV credits can also be earned by early compliance with ZEV requirements and through the environmental justice vehicle value option.
- The environmental justice vehicles value option will incentivize automakers to invest in community carshare programs, produce more affordable ZEVs, and ensure that more used ZEVs are available.



Time Check...

# Complementary Programs to support Clean Transportation

Division of Climate, Coastal & Energy

October 13, 2022

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# Complementary Incentives, Programs and Policies

INCENTIVES

UTILITY PROGRAMS

REGULATION/  
LAWS

PLANNING

# INCENTIVES

- **The Clean Transportation Incentive Program**
- *This program initiated in 2015 and are foundational to the progress we have made thus far in deploying EVs without the companion regulations that other states have.*

## Clean Vehicle Rebate Program

### Electric Vehicle Rebates

Battery Electric Vehicles - \$2,500



Plug-in Hybrid Vehicles - \$1,000



Applies to vehicles purchased between July 1, 2021 and December 31, 2022 with a total purchase price of \$60,000 or less. Applications are due within 90 days of the vehicle's purchase.

For full program details, visit [de.gov/cleantransportation](https://de.gov/cleantransportation)

## Clean Vehicle Rebate Program

### Electric Vehicle Charging Station Rebates

Public Access/Workplace	Fleet	Multi-Family Dwellings
75% - Commercial properties 90% - Government & Nonprofit	75% - Commercial properties 90% - Government & Nonprofit	90% - Commercial properties 90% - Government & Nonprofit
Limit: 6 charging ports	Limit: 6 charging ports (commercial) Limit: 10 charging posts (Gov. & Nonprofit)	Limit: 10 charging ports

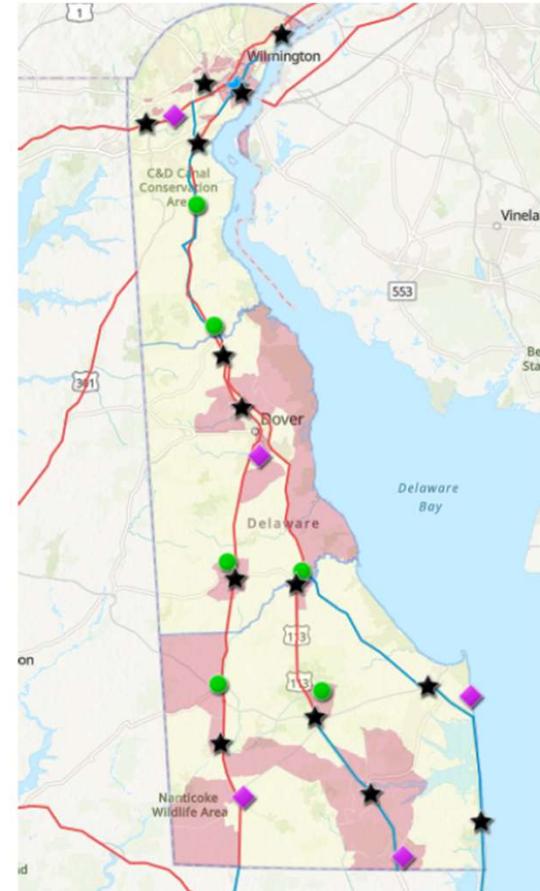
Rebates apply to the purchase of Level 2 stations. Program does not cover network fees, installation or site work. Max rebate: \$3,500/single port; \$7,000/dual port.

For full program details, visit [de.gov/cleantransportation](https://de.gov/cleantransportation)

October 13, 2022

# INCENTIVES

- **Competitive Grants for DC Fast: VW Mitigation Settlement Funding**
  - \$1.4M in VW settlement funds awarded through a one-time competitive grant. 14 new locations chosen.
- **Competitive Grants Incentives for Charging through Federal NEVI Funding: Coming soon!**
  - \$18M over 5 years will be invested in charging stations beginning with DC Fast stations in highway corridors, then focusing on neighborhood charging of various types. Delaware NEVI Plan approved.



October 13, 2022

# INCENTIVES

- **NEW! Energize DE program for Local Governments**
- Grants up to \$500,000 to assist municipal and county governments purchase of EVs, charging stations, electric motorcycles and electric lawn equipment.

## **GRANTS FOR LOCAL GOVERNMENT EV FLEETS**

Energize Delaware promotes the use of electric vehicles in county and local governments. Because of this, we created a new program, **Grants for Local Government EV Fleets**, funded with five million dollars in the fiscal year 2022-2023. The grant will help county and local governments purchase electric vehicles (EVs). Grants are available for up to \$500,000. Energize Delaware will only accept one grant per applicant except when the local government requests funding for a feasibility study. In that case, they may follow up with a second grant for vehicles and charging stations.

**Applications will be accepted starting October 15, 2022**

October 13, 2022



# UTILITY PROGRAMS

- **DE Electric Coop residential charger program**
  - Customers of the Coop can get a \$200 billing credit and \$5 credit during summer months for participating in a Beat the Peak program. Specific requirements for charger used.
- **Delmarva Power Electric Vehicle Program**
  - Delmarva Power customers can receive a time-of-use rate specific to EV charging.



## Receive a \$200 Billing Credit!

Members who have purchased or who are considering the purchase of an electric vehicle (EV) can play a new and important role in our Beat the Peak program.



## REGULATION/ LAWS

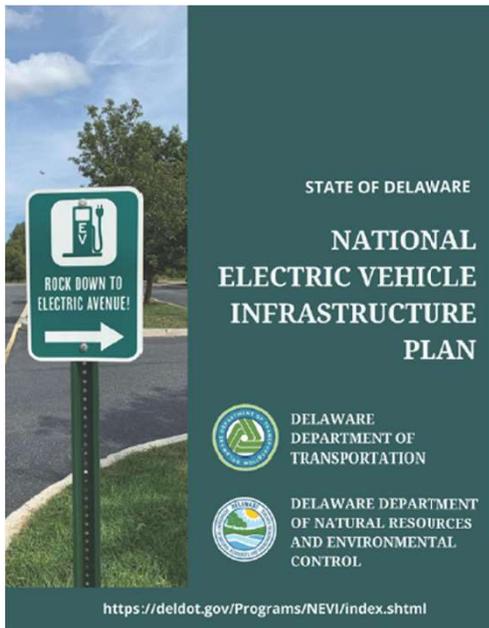
**Regulation of charging stations by Public Service Commission:** In 2019, PSC determined they would not regulate charging stations as public utilities or electricity providers, eliminating regulatory uncertainty and delays

**New Castle County Code requirements:** NCCo is the first county to require that new construction is "EV-Ready".

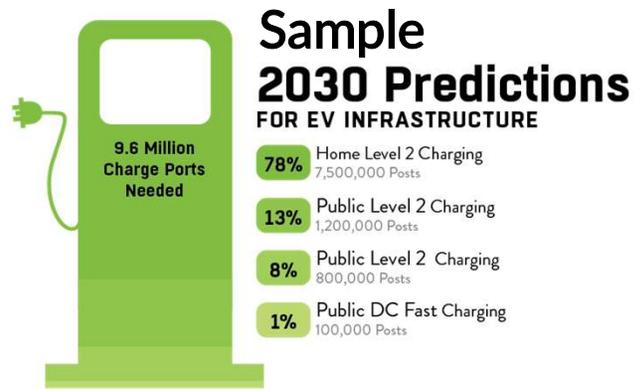
### **State legislation: SB187**

SB187 requires the development of ordinances to guide the provision of charging stations on residential streets. Law applies to towns with populations with over 30,000 people (Dover, Newark, Wilmington)

# PLANNING



Delaware NEVI Plan



Statewide EV Infrastructure Plan



Update Delaware Energy Plan

# Open Discussion Ground Rules....

- Be curious, open, patient and respectful
- One person speaks at a time
- Take space/make space
- Avoid jargon, acronyms and industry terms
- Speak from your own experience
- Challenge assumptions
- Anything else...?



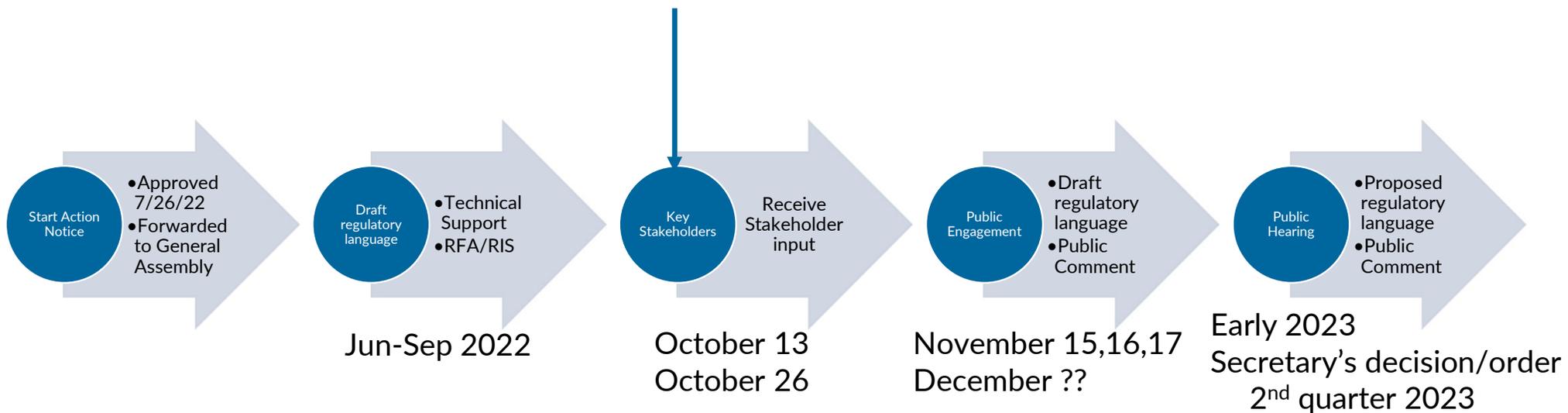
## Questions?

Why should Delaware adopt California vehicle emission standards?

What barriers have you identified that the Department should consider?

What issues should we consider going forward?

# Regulatory development timeline



# Next Steps

- October 26, 2022 Meeting with key stakeholders
- Public Workshops
  - Tuesday, November 15, 2022 Public workshop 10 am
  - Wednesday, November 16, 2022 Public workshop 1 pm
  - Thursday, November 17, 2022 Public workshop 6 pm
- 1<sup>st</sup> Quarter 2023 Public Hearing
- July 1<sup>st</sup> Final adoption
- January 2, 2026 program begins with model year 2027 vehicles

For additional information – see our website  
at <https://dnrec.alpha.delaware.gov/air/permitting/under-development>

## Regulations and Plans Under Development



**Air Quality**

- Home
- Contact Us
- Air Quality ▶
- Open Burning ▶
- Asbestos ▶
- Permitting & Regulation ▶
- Greenhouse Gases ▶
- Mobile Sources ▶
- Get Involved

The DNREC Division of Air Quality is committed to openness and transparency as it updates and amends state Air Quality Regulations and related state implementation plans. This page provides information on items under development.

[Air Quality Regulations](#)

[Air Quality Public Hearings](#)

### Amendments to the Delaware's Low Emission Vehicle Program

The Division of Air Quality is amending regulation 7 DE Admin. Code 1140 - Delaware's Low Emission Vehicle Program.

The purpose of this action is to amend 7 DE Admin. Code 1140, to update the adoption by reference of California's Advance Clean Car II (ACC II) low emission vehicle and greenhouse gas standards and add the requirements for zero emitting vehicles for model year 2026 and beyond.

The ACC II regulations will reduce criteria and greenhouse gas emissions from new light- and medium-duty vehicles beyond the 2025 model year as well as add the new requirements for zero emission vehicles.

These standards were adopted in 2010 and went into effect for model year 2014, and since the original adoption California has made changes necessary for automobile manufactures to comply.

Section 177 of the Clean Air Act requires that Delaware standards must be "identical to the California standards."

This regulatory amendment process started with [DNREC Start Action Notice 2022-01](#).

#### Contact Us

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[Stakeholder Meetings](#)



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